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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/085,092	03/01/2002	Masahiro Shimizu	07043.0020	7213

22852 7590 05/18/2005

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EXAMINER
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FUQUA, SHAWNTINA T

ART UNIT	PAPER NUMBER
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3742

DATE MAILED: 05/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/085,092

Applicant(s)

SHIMIZU ET AL.

Examiner

Shawntina T. Fuqua

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 10 February 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-39, 41-58, 60 and 62-73 is/are pending in the application.
- 4a) Of the above claim(s) 9-18, 26-37 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-8 is/are allowed.
- 6) ☒ Claim(s) 19-25, 38, 39, 41-58, 60 and 62-73 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 March 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 19-73 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takahashi et al (6518547) in view of Sandhu (US6232580).

Takahashi et al discloses a heat treatment apparatus comprising a support member (24), a plurality of lamps (11a-c) located above the support member (24) wherein each of the lamps act as a heat source and comprises an illuminant/filament coil (110a, 110b) generating a light (column 7, line 35) in a direction perpendicular to a projection face (14), a gold film (column 7, lines 5-7) inner surface (112) covering the illuminant and which has a curvature (Figures 2-3) to reflect light wherein the inner surface forms a semi ellipsoidal/conical shape (column 7, lines 11-14; column 9, lines 55-60) which emits light toward object by one time reflection, a projection face (14) through which light is projected (column 5, lines 53-56), an electrode part (Figure 3, T) to supply power (column 7, line 39), a temperature control part provided to cool and control the temperature of the lamps (column 6, lines 50-55; column 9, lines 49-51), and a plurality of third and fourth lamps (Figures 10, 16, 18). Takahashi et al does not disclose an inner surface reflecting the light generated by the illuminant extends to a backside of the illuminant with respect to the direction toward the object, the inner surface faces the illuminant without any

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constituent part of the lamp therebetween, and a first cooling part and a second cooling part.

Sandhu discloses an inner surface (61) reflecting the light generated by the illuminant (28)

extends to a backside of the illuminant with respect to the direction toward the object (column 6, lines 1-8), the inner surface faces the illuminant without any constituent part of the lamp

therebetween (Figures 2-7), and a first cooling part (64) and a second cooling part (70). It would

have been obvious to one of ordinary skill in the art at the time the invention was made to have

included an inner surface reflector which extends to a backside of the illuminant as well as the

first and second cooling part of Sandhu in the apparatus of Takahashi et al because, an inner

surface reflector which extends behind the illuminant redirects the light from the light sources in

a downward direction and a first and second cooling part allows the inner surface and lamps to

be cooled more efficiently.

### ***Response to Arguments***

3. Applicant's arguments with respect to claims 1-8, 19-25, 38-39, 41-58, 60, 62-73 have been considered but are moot in view of the new ground(s) of rejection.

### ***Allowable Subject Matter***

4. Claims 1-8 are allowed.

5. The following is an examiner's statement of reasons for allowance: the prior art of record neither discloses nor suggests a plurality of lamps including at least one first lamp and a plurality of second lamps each having an irradiation area smaller than that of the first lamp.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### *Conclusion*

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shawntina T. Fuqua whose telephone number is (571) 272-4779. The examiner can normally be reached on Monday-Friday 8-4:30 pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor Robin Evans can be reached on (571) 272-4777. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

stf  
May 9, 2005

  
Shawntina Fuqua  
Patent Examiner  
Art Unit 3742